



8MP 180° IP Camera with GENSTAR IVS 2.0 Analytics

Model	ZN8-80X2B8F28DT-J4
Image Sensor	2 × 1/2.8" STARVIS™ CMOS, 5MP
Sensitivity (AGC ON)	Color: 0.01 lux @ F1.6 (AGC ON) B/W: 0.001 lux @ F1.6; 0 lux with illuminator
Day/Night Mode	Auto (ICR) - IR-cut filter
Electronic Shutter	1/5 - 1/100,000 s
Iris	Fixed Iris, F1.6
WDR Mode	True WDR (120 dB)
Noise Reduction	2D / 3D DNR
Lens	Dual fixed 2.8 mm; H: 180°, V: 63°
LED Illuminator	IR 850 nm: up to 40 m Warm white light: up to 30 m
AV Compression	H.265 / H.264 / MJPEG G.711 A-law / μ-law / RAW_PCM
Video Bit Rate (CBR/VBR)	Stitched mode: S1: 500 Kbps - 16 Mbps S2: 100 Kbps - 8 Mbps Multi-channel mode: S1: 200 Kbps - 12 Mbps S2: 100 Kbps - 6 Mbps
Resolution & Frame Rate	Stitched mode: S1 4608×1728, 3072×1152; S2 1536×576, 960×360 Multi-channel mode: S1 2592×1944, 2592×1520, 1920×1080, 1280×720; S2 D1, VGA, CIF, QVGA Up to 15 fps
Video Streams	2 video streams Max. 10 simultaneous channels
Image Settings	Brightness, sharpness, contrast, saturation
Digital Functions	WDR / HLC / BLC / Defog / ROI (8 regions)
Scene Modes	Indoor / Outdoor / Mirror
Privacy Masks	4 regions
Events	IVS, motion detection, alarm input, network/disk alarm, D/N switching, abnormal sound
Network Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, 802.1X, SNMP, Multicast
RTSP Support	RTSP RFC 2326; up to 10 simultaneous channels
Security	Digest, brute-force protection, IEEE 802.1X, HTTPS/WSS/SRTP
Compatibility	ONVIF (Profile S/T/G/M), SDK, CGI
Ethernet Interface	1 × RJ45 10/100 Mbps
Audio	1× IN / 1× OUT (3.5 mm), microphone and speaker; transmission up to 60 m
Alarm	1× IN / 1× OUT
Analog Output	N/A

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Key Features:

- **GENSTAR IVS 2.0 - AI Analytics** - face, person and vehicle detection/capture plus human and vehicle attribute analysis.
- **Panorama 180°** - dual 5MP sensors; stitched image up to 8MP (4608×1728) at 15 fps, plus multi-channel mode.
- **Dual Light** - IR illuminator up to 40 m and warm white light up to 30 m; smart mode switches to color after target detection.
- **Advanced Analytics** - intrusion, smart motion detection, single/double line crossing, loitering, wrong direction, perimeter and behavioral events.
- **Smart Encoding and ROI** - stream optimization and up to 8 regions of interest; True WDR 120 dB, 3D DNR, Defog, HLC and BLC.
- **Two-Way Audio** - built-in microphone and speaker plus 1 audio input/output and 1 alarm input/output.
- **Storage and Housing** - microSD slot up to 1 TB and aluminum housing rated IP66.
- **NDA Compliance** - device compliant with the National Defense Authorization Act.
- **Heat Map** - creates color-coded heat maps. Provides information on the flow of people and/or vehicles over time within a selected area.

AI Analytics Capabilities: GENSTAR IVS 2.0

AI Engine Features (Artificial Intelligence)	Detection and capture: face, person, vehicle Person/vehicle classification; attribute analysis
Behavioral Detection	Intrusion, SMD, single/double line crossing, loitering, wrong direction, perimeter and behavioral events
Object Counting	People Counting and Heat Map

Technical Specifications

Power Supply	12 VDC (-15% to +20%) / PoE (802.3af)
Power Consumption	Max. 11.5 W
SD Card Support	Built-in microSD card slot, up to 1 TB
Reset Button	Yes
Power Output	N/A
Operating Temperature	-30°C ... +60°C
Operating Humidity	< 95% RH, non-condensing
Certifications and Ratings	CE-EMC / FCC / IP66
Dimensions / Weight	227.7 × 110 × 80 mm / approx. 0.82 kg
Housing	Aluminum alloy
Adjustment Range	Pan: 0°-360° / Tilt: 0°-90° / Rotation: 0°-360°

Network & Cybersecurity

Network & Access	
API / Integration	ONVIF (Profile S/T/G/M), SDK, CGI
Max. Simultaneous Streams	10 simultaneous channels
Users / Levels	32+ users; Administrator, Operator, Media User
Web Browsers	<IE11, Chrome, Firefox, Microsoft Edge
Security / Cybersecurity	
OS / Firmware Protection	Encrypted firmware; signed firmware
User Authentication	Digest; brute-force attack protection
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP address-based access control; automatic logout
Data Protection	Credential encryption
Audit	Access, system and event logs
Secure Storage	AES-256 encryption of SD card data
Supply Chain Security	SBOM

Built-in GENSTAR IVS 2.0 Video Analytics (AI Analytics)

AI Multi-Target	Detection and capture of faces, people and vehicles; human/vehicle target classification
Human Attributes	Gender, age, glasses, headwear, bag, upper/lower clothing color and style, reflective vest
Vehicle Attributes	Type, color, make, direction/orientation
Intelligent Analytics	Intrusion, SMD, single/double line crossing, loitering, wrong direction, people limit, perimeter, illegal parking, running, fall and fight detection
Statistics	People counting and Heat Map

DORI & OODPCVS

DORI Distance (EN 62676-4)						
Lens	Detection		Observation	Recognition		Identification
2.8 mm	44 m		17.6 m	8.8 m		4.4 m
OODPCVS Distance (calculated according to IEC/EN 62676-4:2025 pixel-density thresholds)						
General overview	Object outline	Object discrimination	Behavior perception	Object characterization	Verification	Detailed analysis
55.0 m	27.5 m	13.8 m	8.8 m	4.4 m	2.2 m	0.7 m

**Mounting
Adapters:**



Compatibility:



Additional Information:

Dual-Light (Dual Illuminator)

- ① - IR LED illuminator enabled by default in night mode



- ② - White-light illuminator and color mode enabled after object detection or manually



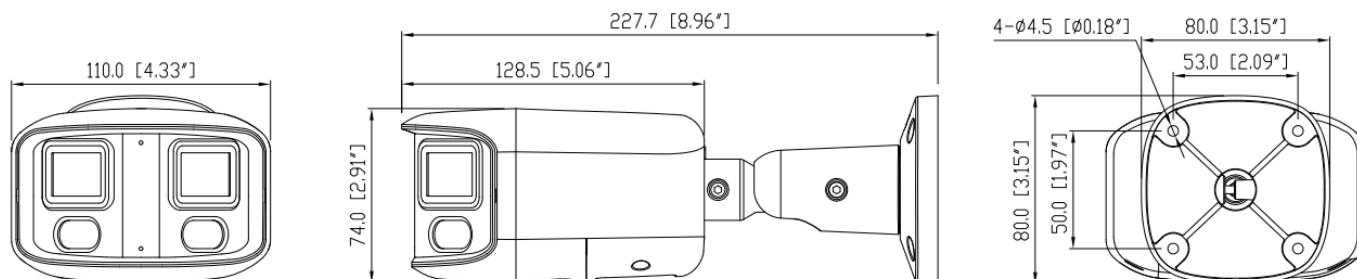
- ③ - Return to normal operating mode after the event



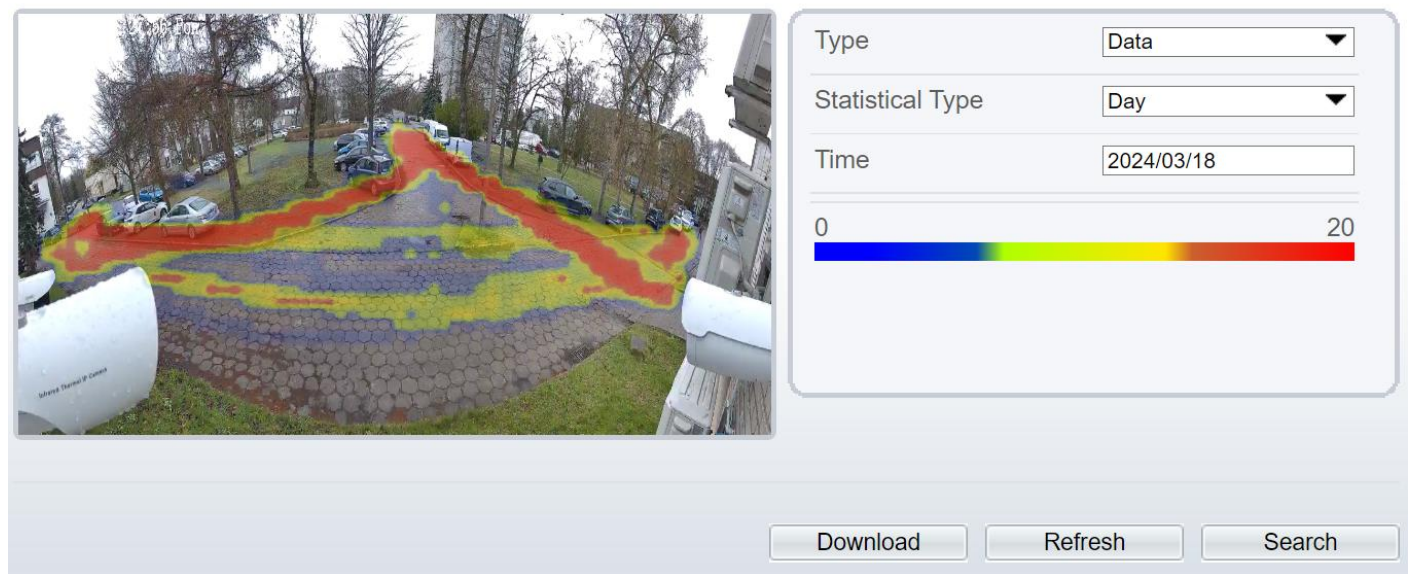
IR Illuminator
(IR LED)

White Light
(White LED)

External Dimensions:



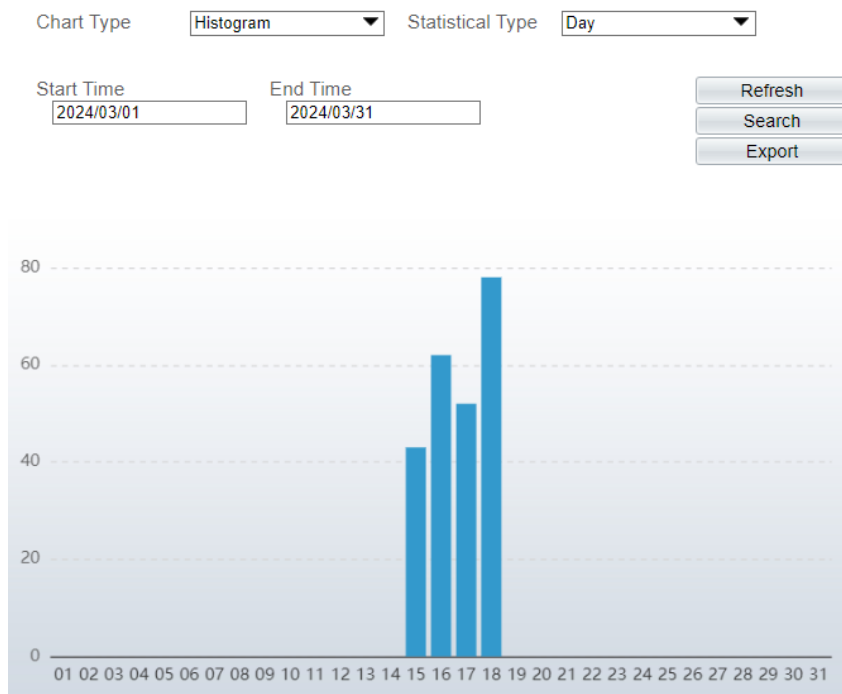
Heat Map Function



Areas with the highest traffic are shown in red, while blue indicates the opposite. The Heat Map function is ideal for locations such as supermarkets, retail stores and shopping centers, helping businesses identify the most popular products. Strategic product placement can help increase sales.

Statistical Data Export

Heat Map Export



Based on this information, customer traffic through the site can be analyzed by hour, day, month or year.